

WHAT IS CLAIMED IS:

- 1           1.     A method of compensating for delays induced by anti-jamming  
2     processing, the method comprising:  
3                 determining a delay error associated with the anti-jamming  
4     processing; and  
5                 adjusting ionospheric corrections in response to the delay error.
- 1           2.     The method of claim 1, wherein the delay is calculated in a  
2     distortion calculator associated with a digital anti-jamming processing circuit.
- 1           3.     The method of claim 2, wherein a distortion calculator determines  
2     the delay error in response to weight values utilized by the digital anti-jamming  
3     processing circuit.
- 1           4.     The method of claim 2, wherein the delay error is provided as serial  
2     data from the anti-jamming processing circuit.
- 1           5.     The method of claim 4, wherein the serial data indicates a delay  
2     error parameter at a specific time period.
- 1           6.     The method of claim 1, wherein the delay error parameter is utilized  
2     to adjust raw pseudo range values before ionospheric corrections are made.
- 1           7.     The method of claim 3, wherein the distortion calculator is  
2     implemented in a digital signal processor.
- 1           8.     The method of claim 1, wherein a derivative of the delay error is  
2     used to adjust the ionospheric corrections.
- 1           9.     A positioning system including an anti-jamming processing circuit,  
2     the positioning system comprises;

3 a distortion calculator for calculating a delay error associated with  
4 the digital anti-jamming processing circuit; and  
5 an ionospheric correction circuit for providing ionospheric  
6 corrections for pseudo range values derived from data provided by the digital  
7 anti-jamming processing circuit, wherein the ionospheric corrections circuit  
8 calculates the ionospheric corrections in response to the delay error to reduce  
9 errors induced from the digital anti-jamming processing circuit.

1 10. The system of claim 9, where in the digital anti-jamming processing  
2 circuit is implemented in an application specific integrated circuit.

1 11. The system of claim 10, wherein the digital anti-jamming  
2 processing circuit includes a digital signal processor for implementing the  
3 distortion calculator and the application specific integrated circuit includes a  
4 weight application circuit.

1 12. The system of claim 9, wherein the ionospheric correction circuit  
2 receives raw pseudo ranges and adjusts the raw pseudo ranges in accordance  
3 with the delay error before creating corrected pseudo range values.

1 13. The system of claim 9, wherein the ionospheric correction circuit is  
2 included in a GPS receiver.

1 14. The system of claim 9, wherein the delay error is provided as serial  
2 data.

1 15. The system of claim 9, wherein the digital anti-jamming processing  
2 circuit is a space time adaptive processing circuit or space frequency adaptive  
3 processing circuit.

1 16. An apparatus for removing anti-jamming induced errors from  
2 ionospheric corrections, the apparatus comprising:

3 means for determining a delay error associated with anti-jamming  
4 processing; and  
5 means for calculating ionospheric corrections, the means for  
6 calculating ionospheric corrections either receiving pseudo range values adjusted  
7 by the delay error or calculates the ionospheric corrections in accordance with  
8 the delay error.

1 17. The apparatus of claim 16, wherein the means for determining a  
2 delay error is a digital signal processor.

1 18. The apparatus of claim 17, wherein when the pseudo range values  
2 are associated with a GPS.

1 19. The apparatus of claim 17, wherein the anti-jamming processing  
2 utilizes a beam forming algorithm.

1 20. The apparatus of claim 19, wherein the beam forming algorithm  
2 utilizes space time adaptive processing and/or space frequency adaptive  
3 processing.